DOCUMENT RESUME

ED 269 981 FL 015 720

AUTHOR Bannert, Robert
TITLE Survey of Foreigners' Pronunciation Problems in Swedish.
PUB DATE 80
NOTE 13p.; In: Papers in Language Learning and Language Acquisition. Papers presented at the Nordic Conference on Applied Linguistics (2nd, Hanasaari, Espoo, Finland, November 23-25, 1979); see FL 015 708.
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Audiotape Recordings; Chinese; Comparative Analysis; English; *Error Patterns; Finnish; Foreign Countries; Greek; Immigrants; Japanese; Panjabi; Persian; Polish; *Pronunciation; *Second Languages; Spanish; Speech Communication; *Suprasegmentals; Surveys; *Swedish; Thai
IDENTIFIERS *Accents; Sweden

ABSTRACT

This paper reports results of an analysis of pronunciation problems and error patterns in the recorded speech of 38 immigrants to Sweden. The recordings, of both spontaneous and elicited speech in Swedish, were taken from an archival collection. The native-language groups studied include British English, Spanish, Polish, Finnish, Greek, Persian, Punjabi, Japanese, Chinese, and Thai. Samples of Swedish spoken with prototypical accents of the native languages were used, analysis of the samples was accomplished by direct auditory analysis for comparison with Swedish phonology rather than from transcriptions, and evaluation of pronunciation problems was based on two typical accent phenomena: non-attainment of a phonemic target and impaired comprehensibility involving mostly prosodic features, such as stress, and their combinations. The results of the analyses are presented in chart form, which note the specific Swedish segmental and prosodic targets at phrase, word, and syllable levels and the languages in which those targets appear to be most problematic. The chart format is used to clarify the number and distribution of problems for each language and to be a potentially useful source of information for teachers of Swedish for foreigners. (MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED269981

SURVEY OF FOREIGNERS' PRONUNCIATION PROBLEMS IN SWEDISH[1]

ROBERT BANNERT
Lund University

Background

One of the characteristic difficulties of teaching Swedish to foreigners is that it involves dealing with linguistically heterogeneous groups. This fact presents special problems for language instruction and also, of course, for the acquisition of adequate pronunciation. The sound structures of the different languages are often very different from that of Swedish, and they often differ considerably among themselves. Working in a group with several different primary languages places extreme demands on the teacher. One basic requirement for succes in this task is that the teacher has knowledge of the pronunciation problems that foreigners can have.

The purpose of this report is to present the Swedish pronunciation problems that we have observed in the foreign accent archives.[2] We have taken up pronunciation problems that a pupil can have, but obviously he or she need not have all of them. The acquisition of pronunciation depends on so many different factors - not the least of which are extra-linguistic - that we usually find a large variation with respect to the particular aspects of pronunciation in the target language which will cause difficulties for a given individual. On the other hand, there do seem to be some difficulties which all pupils tend to have.

The goal of the teaching of pronunciation to adult immigrants should in general be an intelligible Swedish. This means that some degree of foreign accent can be accepted. But those features of Swedish pronunciation which are salient features of intelligibility have to be learned as correctly as possible.

[1] Report from the project "Optimalizing the teaching of Swedish pronunciation" led by Eva Gårding and supported by the Bank of Sweden Tercentenary Foundation.

[2] The foreign accent archives consist of 70 tape recordings made by immigrants who spoke Swedish with a typical accent. 25 languages are represented.

FL 015120

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
J. Tommola
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Materials

Twenty-five languages are represented in the foreign accent archives. They cover a broad spectrum of variation in phonological systems, including vowel, consonant, and prosodic differences. The recorded speech samples include two types of materials: texts which the informants have read aloud and spontaneous speech. Informants were permitted to go through the entire text material before the recording and were encouraged to use various methods to help them understand the texts.

The languages in the foreign accent archives and the distribution according to primary language of the 70 informants are shown in Table 1. The languages are divided into a group of ten main languages, which form the core of the project work, and another group of fifteen related languages. Only the problems related to the ten main languages will be reported here.

Table 1. The languages in the foreign accent archives and the distribution according to primary language of the 70 informants.

MAIN LANGUAGES		RELATED LANGUAGES	
British English	2	Icelandic	1
		German (North-German, Bavarian, Switzer-German)	3
		Dutch	1
		American English	3
Spanish	7	French	3
		Portuguese	3
Polish	6	Serbocroatian	3
		Czech/Slovak	2
		Russian	2
Finnish	4	Hungarian	3
Greek	5		
		Turkish	2
		Arabic	2
		Swahili	1
Persian	5		
Punjabi	2	Hindi	2
		Tamil	1
Japanese	3		
Chinese	2		
Thai	2		

BEST COPY AVAILABLE

Analysis

The analysis of the samples of foreign accents in Swedish has proceeded according to what we have called optimizing principles, which we found useful in reducing the time and work involved in working with such a rich material. There were three principles involving the use of prototypical samples, the method of systematic analysis, and the evaluation of relative importance.

The use of prototypical samples. - As informants we chose foreigners who spoke Swedish with an accent considered typical for that person's primary language. This choice was based on the assumption that a person with a prototypical accent will optimally represent the pronunciation difficulties in his or her foreign accent. In this way it should be possible to keep the number of informants for each language relatively small. Judgements of prototypical accents were made with the help of the teachers and were supplemented during the course of the project by our own observations.

The method of systematic analysis. - A primarily auditory analysis of the accent material was carried out at least twice. These auditory analyses were supplemented by a visual inspection of the speech signal with respect certain specific features[3]. In contrast to the usual procedure, where the whole material is transcribed, requiring an enormous amount of time and work, we experimented with a direct systematic analysis. For each auditory analysis a checklist diagram was used. This is shown in Figure 1. The checklist contains first the target values or primary units of Swedish pronunciation, and therefore represents the phonology of Swedish; it consists of three parts - vowels, consonants, and prosody. The pronunciation targets are concrete and correspond to the actual sounds and prosodic characteristics which foreigners are exposed to when a Swede speaks to them. The checklist also includes possible deviations from the Swedish norms, e.g. vowel deletion or voicing assimilation of consonants. This method of analysis gives a qualitative picture of the degree of control over the pronunciation targets

[3] Stress and phrase melody were investigated with the Voicescope. It consists mainly of a pitch meter which extracts the speech melody. The melody is represented by the pitch curve, which is displayed on a screen. The features aspiration and voicing were checked with a duplex oscillogram which was displayed on the screen of a storage oscilloscope. For further details see Bannert 1979.

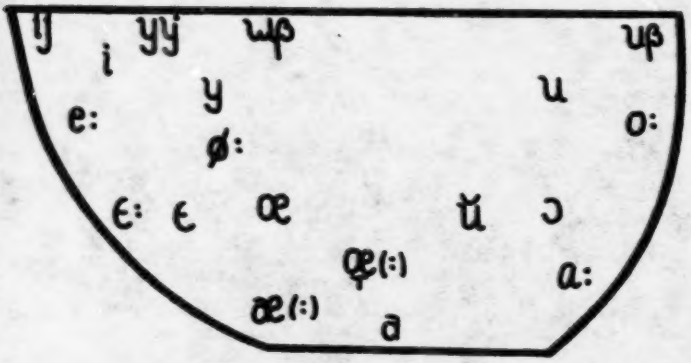
BEST COPY AVAILABLE

CHECKLIST DIAGRAM

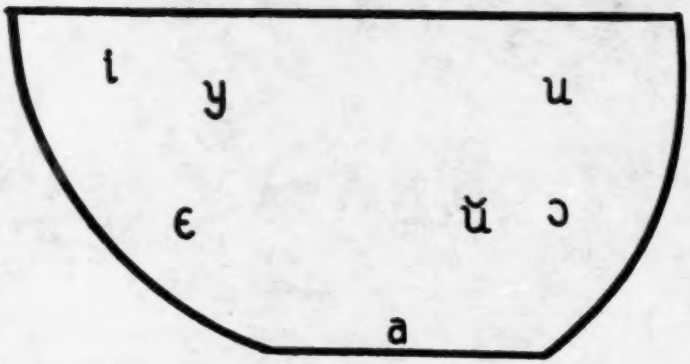
Language: Name: Date:

VOWELS

1. Vowel quality in stressed syllable



2. Vowel quality in unstressed syllable



nasalizing whisper 3. Processes

palatalizing deletion

4. Spelling

5. Other

Figure 1. Checklist diagram for systematic analysis.

Figure 1 (continued).

CONSONANTS

1. SIMPLE

Position	STOPS: aspirated			STOPS: unaspirated			FRIKATIVES: sibilants			FRIKATIVES: others				NASALS			LIQUIDS		SUP DEN
INITIAL (before stressed vowel)	ph	th	kh	ʈ	ɖ	ʧ	ʃ	s	ʂ	f	h	v	j	m	n	X	l	r	
MEDIAL (following stressed vowel)	p	t	k	b	d	ʤ	ʃ	s	X	f	X	v	j	m	n	ŋ	l	r	
FINAL (before pause)	ph	th	kh	ʈ	ɖ	ʧ	ʃ	s	X	f	X	v	j	m	n	ŋ	l	r	

2. CLUSTERS: initial medial final

   a. vowel insertion

   b. deletion

   c. other

3. Voice assimilation

4. Syllabic consonants

5. Other

PROSODY

1.1 Stressed syllable

a. vowels
long

short

b. consonants

1.2 Unstressed syllable

1. Quantity

YES NO

2. Word stress

2.1 Word classes: negation pers.pron. reflex.pron. other

2.2 Distribution

a. one stress (primary stress):

b. two stresses (primary and secondary stress):

2.3 Manifestation

a. temporal

b. tonal

3.1 Word accents

3.2 Question/statement

3.3 Sentence accent

3. Intonation

4. Phrase rhythm
(distribution of stress on phrase level)

5. Phrasing

6. Other

Figure 1 (continued).

BEST COPY AVAILABLE

of Swedish, within a phonological system, and it also serves to clarify the informant's range of variation for different parts of the phonological structure of Swedish.

Evaluation. - The primary object of this project is to determine what general problems Swedish pronunciation presents for the speaker of a particular primary language. How to decide on where to draw the line between a deviation which charactarizes a given foreigner's pronunciation and a general problem that the teacher should pay special attention to in teaching pronunciation is by no means obvious. This kind of evaluation depends on many factors.

1. One of the problems that can arise is that a particular target is not attained. The phonemic districtions involve mainly segments (phonemes). When mjöl ('flour') is pronounced as mjöll ('dandruff'), the target - the long /ö:/ - has not been reached.

Judgements of this sort are made on the basis of standard central Swedish pronunciation, but consideration is also given to regional variants, e.g. front, back, tremulant and fricative variants of /r/ are accepted. The vowels /ɛ/ and /ɔ/ need not be open before a front, tremulant /r/. A dark /l/ is judged an acceptable pronunciation of the standard Swedish /l/.

2. A different problem is that of impaired comprehensibility. This involves for the most part prosodic features and their combinations. One of the most important features is stress, both at the word and the sentence levels.

Results

The results of the analyses must be presented in a manner which is as pedagogically appropriate as possible[4]. The goal is that the information should be easily available to anyone who teaches Swedish to foreigners.

The results are divided into two parts, a detailed version for each of the languages investigated, and a summary form. The detailed analysis covers the phonology of Swedish, the systematic effects of syllabification on pronunciation, and important strategies that foreigners often use when confronted with problems with Swedish phonology. All problematic pronunciation

[4] "Immigrants in the communication society: to understand and be understood" led by Robert Bannert and Kenneth Hyltenstam and supported by the Bank of Sweden Tercentenary Foundation. Time 1.1.80 - 31.12.82.

BEST COPY AVAILABLE

PHONOLOGICAL TARGETS in Swedish						LANGUAGES AND DIFFICULTIES									
						British English	Spanish	Polish	Finnish	Greek	Persian	Punjabi	Japanese	Chinese	Thai
WORD AND SYLLABLE — SEGMENTS	Consonant clusters	preceding stressed vowel					D,sC		D		V,sC	V,sC	V,sC	V,D	sC
		following stressed vowel					D,VA	VA	D	D,VA	V,D	V,VA	V,D	V,D	
		before pause					D		D	Rst	V,D	V	V,D	V,D	D
	Simple consonant	stops	aspirated				•	•	•	•		I,F			I,F
			unaspirated				M,F	DV	•			F			F
		sibilants					•		•	•			S		
		other fricatives							f			f,v	f,v,h	S,v	
		nasals					F			M	M,F		M,F		
		liquids											•	•	•
	Vowels	Quantity	Categories (short/long)			s/l	s/l	l		s/l	s/l				
			Distribution			•	•	•		•	•	•	•	•	•
		Quality	Stressed	palatal rounded		•	•	•	y,ä	•	•	•	•	y,ä	y,ä
				pharyngeal											
				others		•	•	•,o		•,o	•,o	•,o	•,o,u	•	•
			Unstressed			R,D						D		R	
	Polysyllabic words (often morphologically complex)										•	•	•	•	
PHRASE — PROSODY	Word stress	Manifestation (temporal, tonal)									•	•	te	te	te
		Distribution	one-stressed (primary)				•	•	I	•	•	•	•	•	•
			two-stressed (primary and secondary)				•	•		•	•	•	•	•	•
	Wordaccent										•	•	•	•	
	Sentence accent										•	•			
	Intonation						•	•		•	•				
	Phrase rhythm(distribution of stresses on phrase and sentence level)										•	•	•	•	•

Table 2. Problems evaluated as most important in foreigners' pronunciation of Swedish

SYMBOLS IN TABLE 2

•	difficulty	R	reduction
D	deletion	sC	s + consonant word initia
DV	final devoicing	s/l	categories short, long
F	final position in word	te	temporal
I	initial position in word or first syllable	V	vowel insertion
NSt	nasal + stop	VA	voicing assimilation
M	medial position in word		

targets are graphically marked so that the information can be read at a glance. Examples are given for every phenomenon.

Presentation of the problems in table form represents yet another stage in the processing of the results. As a followup of the project's systematic analysis principles, the pronunciation difficulties have been evaluated. The difficulties reported for each language have been judged with respect to their degree of importance for comprehensibility in a speech situation. These judgements have been made in accordance with the principles outlined in Gårding (1979). The result is a hypothesis about the range of interference effects on comprehensibility for the particular deviations from the Swedish targets that we have found. It should be emphasized that this hypothesis must be tested. This will be one of the tasks of a new project[5] An overview of Swedish pronunciation difficulties, according to this evaluation, is given in Table 2.

The Swedish targets are listed to the left. They form the rows of the diagram and are grouped according to their respective domains, that is, word, syllable, or sentence domains, and according to type, i.e. segmental vs. prosodic. The pronunciation targets are shown in appropriate groups and subgroups. Presentation of the sound structure of Swedish in terms of distinctive features has been avoided for several reasons, the most important of which was pedagogical. However, it must be pointed out that, in order to get the most out of the information presented, the teacher needs some knowledge of elementary phonetics. Appropriate literature is therefore listed in the bibliography under a special heading.

The right side of the diagram shows the main languages. They form the columns and contain a specification of the targets for which a foreigner

[5] To appear in Swedish in Praktisk Lingvistik, Institute of Linguistics, Lund University.

BEST COPY AVAILABLE

with this particular primary language can be expected to have serious difficulties. Each position which is not so marked corresponds to a target which is not expected to cause any serious problems; one ought to keep in mind that some deviations may occur even on this point.

The marking of the columns has been chosen so as to be optimally informative. An "o" means that difficulties with a particular target can be expected. But this symbol does not indicate what type of difficulties will be encountered, nor how the pupil will behave in trying to avoid the problem. If, for example, only one of a group of sounds causes difficulties, this particular sound is shown by its phonetic symbol. This is the case, for example, for Polish speakers, who will have difficulties with /h/, but not with other targets in the fricative group.

Table 2 makes it easy to compare the problems for each language with those of the others. Such a comparison brings out a factor of considerable importance for the teaching situation. This concerns both the number of difficulties and in particular their distribution among the Swedish targets. As a rough approximation one can say that learning the pronunciation of Swedish is harder for a foreigner as the number of difficulties he or she has increases. Even though the difficulties may vary in the degree to which they contribute to his or her foreign accent, the number of problems shown in the diagram can serve as a rough but nonetheless useful estimate of the amount of instruction which will be necessary. But it is the second aspect which deserves the most attention: Foreigners who have problems in all areas of Swedish phonology will surely have a much harder time acquiring an adequate pronunciation than those whose problems are limited to a particular sub-area. As an example, compare English speakers with speakers of Persian: While the speaker of English has relatively few problems, primarily with Swedish vowels, Iranians have serious difficulties throughout, with consonants, vowels, and prosody. The Iranian has problems not just with individual segments, but with syllables, words and sentences as well.

Applications

The result of this report can be used in different ways and for different purposes. I shall list a few of these and comment on them.

The information itself - which problems are associated with which primary languages investigated - is an important source of information for the teacher of Swedish for foreigners. This applies to currently active teachers, and not the least to those who are now enrolled in teacher educa-

BEST COPY AVAILABLE

tion programs.

The conditions for instruction in linguistically heterogeneous groups are greatly improved. By comparing the problems pertaining to just those languages represented in the class, the teacher can give higher priority to targets that will cause difficulties for the greatest number of pupils.

The results of the analysis can also be used to monitor pupils' progress during the course of instruction. The teacher can easily construct a diagnostic test by first consulting Figure 1 and listening to speech samples, and the marking the deviant pronunciations according to the targets. This technique can also be useful in following up the effect of a given method of instruction. In this case Figure 1 can be used as an measurement tool either continually or at the beginning and the end of a period of instruction.

The collection of pronunciation problems in different languages (Table 2) can also be used as a measure of the phonological distance of a given primary language from Swedish. It is obvious that languages which give rise to only a few difficulties and furthermore to difficulties within only one of the three areas of Swedish phonology, for example, English, are closer to Swedish than languages like Spanish, which give rise both to more difficulties overall, and to a wider distribution of problems over all three different areas. One application of this kind of comparison is directly obvious - the question of deciding relative instruction time. A comparison of the different languages in terms of number of difficulties and their distribution should be an asset in making decisions, for example, about the design and length of preparatory studies in Swedish for foreign students.

BEST COPY AVAILABLE

Bibliography

1. Background literature

Bannert, R. 1979a. Fel som bäger ihop, Praktisk Lingvistik, 23-42. (Institute of Linguistics, Lund University)

Bannert, R. 1979b. Ordprosodi i invandrarundervisningen, Praktisk Lingvistik 3.

Bannert, R., E. Gårding, and S. Wood 1976. Vokaler och vokalsystem, in E. Gårding (ed.), Kontrastiv fonetik och syntax med svenska i centrum, Lund.

Gårding, E. 1974. Kontrastiv fonetik. Lund.

Gårding, E. 1976. Konsonanter och konsonantsystem, in E. Gårding (ed.), Kontrastiv fonetik och syntax med svenska i centrum, Lund.

Lundström, E., and P. af Trampe 1977. Elementär fonetik. Stockholm.

2. Pronunciation problems

Bannert, R. 1979c. Rapport från uttalskliniken, Praktisk Lingvistik 1, 45-57.

Bodegård, A. 1969. Svårigheter i svenskt uttal för polsktalande. Mimeographed. ASF Stockholm.

Corell, N., and N.-O. Pettersson 1978. Elva språk och svenska. Lathund för SFI-undervisningen. IES, Stockholm University.

Dahlstedt, K.-H. 1967. Svårigheter i svenskans uttal. Lund.

Gårding, E. 1979. Avvikande uttal: analys och värdering, Praktisk Lingvistik 1, 11-21.

Hammarberg, B., and B. Svensson 1975. Svenska som främmande språk - en lärobok. Stockholm.

Johansson, F.-A. 1973. Immigrant Swedish Phonology. A study in Multiple Contact Analysis. Travaux de l'Institut de Linguistique de Lund. Lund.

Walz, J. 1979. The early acquisition of a second language phonology. Hamburger Phonetische Beiträge 28. Hamburg.